CLAIMS

1. A method for identifying a peptide capable of specific binding to a proteinaceous target, comprising displaying the peptide on the surface of a replicable display package, synthesizing oligopeptides derived from the proteinaceous target on a solid phase and contacting the specific binding peptide with the oligopeptide to allow for binding.

2. A method for identifying a peptide capable of specific binding to a fixated biological target, comprising displaying the peptide on the surface of a replicable display package and contacting said specific binding peptide with the fixated target to allow for binding.

3. A method for distinguishing between peptides capable of specific binding to a proteinaceous antigen and peptides not having that capability comprising displaying candidate peptides on the surface of a replicable display package, synthesizing oligopeptides derived from the proteinaceous antigen on a solid phase and contacting the candidate peptides with the oligopeptides to allow for binding and washing the solid phase to remove the display packages not specifically bound.

4. A method for distinguishing between peptides capable of specific binding to a fixated biological target and peptides not having that capability comprising displaying candidate peptides on the surface of a replicable display package, contacting said specific binding peptide with the fixated target to allow for binding and washing the fixated biological target to remove the display packages not specifically bound.

5. A method according to ~~anyone of the afore going claims~~ claim 1, whereby the replicable display package is a phage particle.

6. A method according to ~~anyone of the afore going claims~~ claim 1, whereby the replicable display package is a bacterium, a yeast or a spore of a microorganism.

7. A method according to claim 5, whereby the specific binding peptide is diplayed on the surface of the phage by insertion of its encoding sequence in a gene encoding a surface protein of said phage.

8. A method according to ~~anyone of the aforegoing claims~~ claim 1, whereby the displayed peptide is an immunoglobulin heavy chain, an immunoglobulin light chain, a heavy-light chain pair, a VH, a VL, a Fab, a Fv, an scFv or a di-sulfide-bridged Fv.

9. A method according to ~~anyone of the afore going claims~~ claim 1 whereby the specific binding peptide is a single chain antibody fragment, preferably an ScFv.

10. A method according to ~~anyone of the aforegoing claims~~ claim 1, further comprising a step whereby the displayed peptides are contacted with a sample not containing the target of interest.

11. A method for screening a library of replicable display packages for peptides capable of specific binding to a prteinaceous target or a fixated biological target comprising subjecting the peptides in the library to a method according to any one of the aforegoing claims.

12. A method according to claim 11 wherein said library is a phage display library.